

fourth laser beam, the sixth laser beam having the third power.

10. A distance measurement apparatus comprising:

first means for emitting a first laser beam in a first direction,

5 the first laser beam having a first power;

second means for receiving an echo corresponding to the first laser beam;

third means for determining whether or not the second means receives an echo corresponding to the first laser beam;

10 fourth means for emitting a second laser beam in the first direction in cases where the third means have determined that the second means does not receive an echo corresponding to the first laser beam, the second laser beam having a second power higher than the first power;

15 fifth means for inhibiting the fourth means from emitting the second laser beam in cases where the third means have determined that the second means receives an echo corresponding to the first laser beam;

20 sixth means for emitting a third laser beam in a second direction after the fourth means emits the second laser beam or the fifth means inhibits the fourth means from emitting the second laser beam, the second direction being different from the first direction, the third laser beam having the first power;

25 seventh means for receiving an echo corresponding to the third laser beam;

eighth means for determining whether or not the seventh

means receives an echo corresponding to the third laser beam;

ninth means for emitting a fourth laser beam in the second direction in cases where the eighth means have determined that the seventh means does not receive an echo corresponding to the
5 third laser beam, the fourth laser beam having the second power;
and

tenth means for inhibiting the ninth means from emitting the fourth laser beam in cases where the eighth means have determined that the seventh means receives an echo corresponding to the third
10 laser beam.